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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/754,277	01/05/2001	Takayoshi Sawayama	OKI.201	3046

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EXAMINER
ALEJANDRO MULERO, LUZ L

ART UNIT	PAPER NUMBER
1763	

DATE MAILED: 05/05/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/754,277	SAWAYAMA, TAKAYOSHI	
	Examin r	Art Unit	
	Luz L. Alejandro	1763	

-- The MAILING DATE of this communication app ars on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 February 2003* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9* is/are pending in the application.

4a) Of the above claim(s) *1 and 2* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *3-9* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☒ The proposed drawing correction filed on *19 February 2003* is: a)☒ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2-19-03 has been entered.

Specification

The abstract of the disclosure is objected to because the abstract contains less than 50 words. Correction is required. See MPEP § 608.01(b).

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

Drawings

The proposed drawing correction and/or the proposed substitute sheet of drawings, filed on 2/19/03 has been accepted. A proper drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The correction to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 3-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Admitted prior art in view of Loan et al., U.S. Patent 6,296,711 B1.

Admitted prior art shows the invention substantially as claimed including a parallel plate etching apparatus having electrodes 6,7 wherein the upper electrode 6 comprises a cooling plate 2 having a plurality of gas supply holes 3 for supplying the gas, a gas introducing plate 4 having gas holes 3 for introducing the gas into a processing chamber 9, and a jig 5 for fixing said gas introducing plate 4 (see Figure 1 and page 1-line 15 to page 2-line 3 of applicant's specification).

Admitted prior art lacks anticipation of the first pressure detecting means provided between the gas introducing plate and the cooling plate (the area behind the gas introducing plate), the second pressure detecting means in the etching-processing chamber, and means for detecting the difference between the first and second pressure detecting means. Loan et al. discloses an apparatus using pressure sensors 51 and 53(see fig. 1B), whereby pressure sensor 51 is used to measure the pressure behind a gas introducing plate 72, and pressure sensor 53 is used to measure the pressure in the processing chamber (see col. 13-lines 62-67 and fig. 1B). Furthermore, the difference between pressure sensors 51 and 53 is determined as shown in Figure 5G, to control or monitor the process (see col. 15-lines 61-65). In view of this disclosure, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate pressure sensors behind the gas introduction plate and in the chamber of the Admitted prior art, and incorporate means for determining the difference between the pressures detected by the pressure sensors because this will allow for greater controllability over the process (see col. 15-lines 64-65).

Additionally, it should be noted that Loan et al. discloses that pressure differential between the pressure sensors is measured and monitored (see col. 15, lines 61-65 and figs. 1B and 5G), which inherently will require a detecting means as claimed.

With respect to the limitations "wherein operation of said parallel-plate dry-etching apparatus ceases if a pressure measured by said pressure detecting means is lower than a predetermined value" (claim 3) and "upon reaching a predetermined pressure differential, operation of the apparatus is terminated" (claim 5), such limitations

are directed to method limitations instead of apparatus limitations. Since an apparatus is being claimed as the instant invention, the method teachings are not considered to be the matter at hand, since a variety of methods can be done with the apparatus. The method limitations are viewed as intended uses which do not further limit, and therefore do not patentably distinguish the claimed invention. The apparatus of the Admitted Prior Art modified by Loan et al. is capable of being terminated upon reaching a predetermined pressure differential. Note that, as stated above, the process can be monitored and controlled by the pressure detecting means, and therefore, if desired by the operator, operation of the apparatus can be terminated at a predetermined pressure value or differential as claimed.

Regarding dependent claims 8-9, note that the pressure detector 51 of Loan et al. in Figure 1B measures the pressure behind the showerhead 72 and therefore inherently any pressure differences caused by the widening of the holes in the showerhead 72 would be detected.

Response to Arguments

Applicant's arguments filed on 2/19/03 have been fully considered but are not persuasive.

Applicant argues that improper hindsight has been used in the rejection under 35 USC 103(a) of claims 3-9 using the Admitted prior art and Loan et al. references. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on

obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Applicant argues that the newly added limitations concerning ceasing operation of the apparatus are not shown in the references. However, as described in the above rejection under 35 USC 103(a), the examiner contends that the apparatus of the Admitted Prior Art modified by Loan et al. comprises the claimed detecting means and is capable of terminating the operation when a predetermined pressure differential is reached. Therefore the rejection is proper and is maintained.

Concerning claims 8-9, applicant questions whether the holes in the showerhead of the apparatus of the Admitted Prior Art modified by Loan et al. would widen during processing as alleged by the examiner. However, as stated in applicant's specification, the gas introducing plate is a consumable good so this appears to be a natural part of "wear and tear" of the apparatus and would also occur in the gas introducing plate of the apparatus of the Admitted Prior Art modified by Loan et al.. "In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art." Ex parte Levy, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990). This is clearly the case in the instant application since in both applicant's invention and in the apparatus of the Admitted Prior

Art modified by Loan et al., the widening of the holes of the showerhead will result during use of the apparatus.

Conclusion

This is a RCE of applicant's earlier Application No. 09/754,277. All claims are drawn to the same invention claimed in the earlier application and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the earlier application. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action in this case. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no, however, event will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Luz L. Alejandro whose telephone number is 703-305-4545. The examiner can normally be reached on Monday to Thursday from 7:30 to 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory L. Mills can be reached on 703-308-1633. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

Luz L. Alejandro
Primary Examiner
Art Unit 1763

April 30, 2003